

858534
SEQUENCE LISTING

<110> THE GOVERNMENT OF THE UNITED STATES OF AMERICA, AS
REPRESENTED BY THE
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Nagashima, Makoto
Shiseki, Masayuki
Pedeux, Remy

<120> NEW TUMOR SUPPRESSOR GENE, p28ING5

<130> 4239-64141-02

<150> PCT/US03/02174
<151> 2003-01-23

<150> 60/351,504
<151> 2002-01-23

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<170> PatentIn version 3.5

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Asn Leu Pro Cys Glu Leu Gln Arg Asn Phe Gln Leu Met Arg Glu Leu
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gac cag agg acg gaa gat aag aaa gca gag att gac atc ctg gct gca 143
Asp Gln Arg Thr Lys Glu Asp Lys Lys Ala Glu Ile Asp Ile Leu Ala Ala
35 40 45
gag tac atc tcc acg gtg aag acg ctg tct cca gac cag cgc gtg gag 191
Glu Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val Glu
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cgc ctg cag aag atc cag aac gcc tac agc aag tgc aag gaa tac agt 239
Arg Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys Lys Glu Tyr Ser
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gac gac aaa gtg cag ctg gcc atg cag acc tac gag atg gtg gat aaa 287
Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu Met Val Asp Lys
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His Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe Glu Ala Asp Leu
100 105 110
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858534

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His	Gln	Val	Ser	Tyr	Gly	Glu	Met	Ile	Gly	Cys	Asp	Asn	Pro	Asp	Cys		
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cca	att	gag	tgg	ttt	cac	ttt	gcc	tgc	gtg	gac	ctt	acc	acg	aaa	ccc		671
Pro	Ile	Glu	Trp	Phe	His	Phe	Ala	Cys	Val	Asp	Leu	Thr	Thr	Lys	Pro		
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Lys	Gly	Lys	Trp	Phe	Cys	Pro	Arg	Cys	Val	Gln	Glu	Lys	Arg	Lys	Lys		
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		Lys															
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Gln Arg Thr Glu Asp Lys Lys Ala Glu Ile Asp Ile Leu Ala Ala Glu
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858534

Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val Glu Arg
50 55 60

Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys Lys Glu Tyr Ser Asp
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Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu Met Val Asp Lys His
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Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe Glu Ala Asp Leu Lys
100 105 110

Asp Lys Met Glu Gly Ser Asp Phe Glu Ser Ser Gly Gly Arg Gly Leu
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Lys Lys Gly Arg Gly Gln Lys Glu Lys Arg Gly Ser Arg Gly Arg Gly
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Arg Arg Thr Ser Glu Glu Asp Thr Pro Lys Lys Lys Lys His Lys Gly
145 150 155 160

Gly Ser Glu Phe Thr Asp Thr Ile Leu Ser Val His Pro Ser Asp Val
165 170 175

Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu Cys His
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Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp Cys Pro
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 Lys Glu Leu Asp Glu Cys Tyr Glu Arg Phe Ser Arg Glu Thr Asp Gly
 50 55 60
 Ala Gln Lys Arg Arg Met Leu His Cys Val Gln Arg Ala Leu Ile Arg
 65 70 75 80
 Ser Gln Glu Leu Gly Asp Glu Lys Ile Gln Ile Val Ser Gln Met Val
 85 90 95
 Glu Leu Val Glu Asn Arg Thr Arg Gln Val Asp Ser His Val Glu Leu
 100 105 110
 Phe Glu Ala Gln Gln Glu Leu Gly Asp Thr Ala Gly Asn Ser Gly Lys
 115 120 125
 Ala Gly Ala Asp Arg Pro Lys Gly Glu Ala Ala Ala Gln Ala Asp Lys
 130 135 140
 Pro Asn Ser Lys Arg Ser Arg Arg Gln Arg Asn Asn Glu Asn Arg Glu
 145 150 155 160
 Asn Ala Ser Ser Asn His Asp His Asp Gly Ala Ser Gly Thr Pro
 165 170 175
 Lys Glu Lys Lys Ala Lys Thr Ser Lys Lys Lys Arg Ser Lys Ala
 180 185 190
 Lys Ala Glu Arg Glu Ala Ser Pro Ala Asp Leu Pro Ile Asp Pro Asn
 195 200 205
 Glu Pro Thr Tyr Cys Leu Cys Asn Gln Val Ser Tyr Gly Glu Met Ile
 210 215 220
 Gly Cys Asp Asn Asp Glu Cys Pro Ile Glu Trp Phe His Phe Ser Cys
 225 230 235 240
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Glu Cys Val Glu Ser Leu Pro His Asp Met Gln Arg Asn Val Ser Val
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Leu Arg Glu Leu Asp Asn Lys Tyr Gln Glu Thr Leu Lys Glu Ile Asp
 50 55 60

Asp Val Tyr Glu Lys Tyr Lys Lys Glu Asp Asp Leu Asn Gln Lys Lys
 65 70 75 80

Arg Leu Gln Gln Leu Leu Gln Arg Ala Leu Ile Asn Ser Gln Glu Leu
 85 90 95

Gly Asp Glu Lys Ile Gln Ile Val Thr Gln Met Leu Glu Leu Val Glu
 100 105 110

Asn Arg Ala Arg Gln Met Glu Leu His Ser Gln Cys Phe Gln Asp Pro
 115 120 125

Ala Glu Ser Glu Arg Ala Ser Asp Lys Ala Lys Met Asp Ser Ser Gln
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Pro Glu Arg Ser Ser Arg Arg Pro Arg Arg Gln Arg Thr Ser Glu Ser
 145 150 155 160

Arg Asp Leu Cys His Met Ala Asn Gly Ile Glu Asp Cys Asp Asp Gln
 165 170 175

Pro Pro Lys Glu Lys Lys Ser Lys Ser Ala Lys Lys Lys Lys Arg Ser
 180 185 190

Lys Ala Lys Gln Glu Arg Glu Ala Ser Pro Val Glu Phe Ala Ile Asp
 195 200 205

Pro Asn Glu Pro Thr Tyr Cys Leu Cys Asn Gln Val Ser Tyr Gly Glu
 Page 5

210 215 858534 220
 Met Ile Gly Cys Asp Asn Glu Gln Cys Pro Ile Glu Trp Phe His Phe
 225 230 235 240
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 35 40 45

Asn Ala Lys Lys Asn Lys Pro Glu Trp Arg Glu Glu Gln Met Ala Ser
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Ile Lys Lys Asp Tyr Tyr Lys Ala Leu Glu Asp Ala Asp Glu Lys Val
 65 70 75 80

Gln Leu Ala Asn Gln Ile Tyr Asp Leu Val Asp Arg His Leu Arg Lys
 85 90 95

Leu Asp Gln Glu Leu Ala Lys Phe Lys Met Glu Leu Glu Ala Asp Asn
 100 105 110

Ala Gly Ile Thr Glu Ile Leu Glu Arg Arg Ser Leu Glu Leu Asp Thr
 115 120 125

Pro Ser Gln Pro Val Asn Asn His His Ala His Ser His Thr Pro Val
 130 135 140

Glu Lys Arg Lys Tyr Asn Pro Thr Ser His His Thr Thr Thr Asp His
 Page 6

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Glu	Gly	Arg	Arg	Thr	Ser	Ser	Leu	Lys	Ala	Ser	Tyr	Glu	Ala	Phe	Lys
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Val	Gly	Tyr	Ser	Ser	Ser	Ser	Ala	Leu	Met	Thr	Thr	Leu	Thr	Gln	Asn
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Ala	Ser	Ser	Ser	Ala	Ala	Asp	Ser	Arg	Ser	Gly	Arg	Lys	Ser	Lys	Asn
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Ser	Leu	Ser	Ser	Cys	Ser	Ser	Ser	Ser	Thr	Val	Val	Gln	Glu	Ile	Ser
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Trp	Thr	Tyr	Asp	Pro	Asn	Glu	Pro	Arg	Tyr	Cys	Ile	Cys	Asn	Gln	Val
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Ser	Tyr	Gly	Glu	Met	Val	Gly	Cys	Asp	Asn	Gln	Asp	Cys	Pro	Ile	Glu
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Trp	Phe	His	Tyr	Gly	Cys	Val	Gly	Leu	Thr	Glu	Ala	Pro	Lys	Gly	Lys
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Gln Arg Thr Glu Asp Leu Lys Ala Glu Ile Asp Lys Leu Ala Thr Glu
 35 40 45

Tyr Met Ser Ser Ala Arg Ser Leu Ser Ser Glu Glu Lys Leu Ala Leu
 50 55 60

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 85 90 95

Ile Arg Arg Leu Asp Thr Asp Leu Ala Arg Phe Glu Ala Asp Leu Lys
 100 105 110

Glu Lys Gln Ile Glu Ser Ser Asp Tyr Asp Ser Ser Ser Ser Lys Gly
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Ser Lys Gly Lys Asn Ser Asp Glu Glu Ala Pro Lys Thr Ala Gln Lys
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Thr Phe Gly Ser Val His Pro Ser Asp Val Leu Asp Met Pro Val Asp
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Pro Asn Glu Pro Thr Tyr Cys Leu Cys His Gln Val Ser Tyr Gly Glu
 195 200 205

Met Ile Gly Cys Asp Asn Pro Asp Cys Ser Ile Glu Trp Phe His Phe
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Ala Cys Val Gly Leu Thr Thr Lys Pro Arg Gly Lys Trp Phe Cys Pro
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Arg Cys Ser Gln Glu Arg Lys Lys Lys
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